1. Record Nr. UNISA996466516803316

Autore	Barr Michael <1937->
Titolo	Exact categories and categories of sheaves / / Michael Barr, Pierre A. Grillet, Donovan H. Van Osdol
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer-Verlag, , [1971] ©1971
ISBN	3-540-36999-6
Edizione	[1st ed. 1971.]
Descrizione fisica	1 online resource (X, 246 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 236
Classificazione	18B15
Disciplina	512.55
Soggetti	Sheaf theory Categories (Mathematics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Exact categories -- Regular categories -- Sheaves in regular categories.

2. Record Nr. UNISA996387440203316

Titolo	The XXXth. of January. Or, An anniversary [[electronic resource]] : Being a poeme dedicated to the Qveene of Great Brittain, at the Lovre: January the 30.th/20.th
Pubbl/distr/stampa	Printed in Paris, : [s.n.], 1652
Descrizione fisica	10 p
Altri autori (Persone)	S. C Henrietta Maria, Queen, consort of Charles I, King of England, <1609-1669.>
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Dedication: To the royal majestie of Henrietta Maria, Queene of Great Brittain, France, and Ireland, &c. Signed: S.C. Imperfect: print show-through with slight loss of text. Reproduction of the original in the University of Texas, Austin Library.
Sommario/riassunto	eebo-0179

3. Record Nr. UNINA9910633997603321

Autore	Czasny Mathias
Titolo	Additive Fertigung von endlosfaserverstärkten Verbundwerkstoffen: Von der Faser-Matrix-Auswahl über die Druckkopfentwicklung bis zum Faserverbund
Pubbl/distr/stampa	Berlin, : Universitätsverlag der Technischen Universität Berlin, 2022
ISBN	3-7983-3267-3
Descrizione fisica	1 electronic resource (306 p.)
Collana	Advanced Ceramic Materials
Soggetti	Industrial chemistry
Lingua di pubblicazione	Tedesco
Formato	Materiale a stampa
Livello bibliografico	Monografia

Sommario/riassunto

The integration of endless fiber reinforced composites in additive manufacturing enables the automated production of materials with high mechanical properties such as strength. The current state of the art utilizing print heads with separate fiber and matrix feeds showed that, without active infiltration, the fiber infiltration is poor or not possible for thermoplastics with low flowability (high viscosity). In this work, the improvement of the print head technology and the investigated infiltration effect lead to a significantly higher infiltration. The material selection of thermoplastic matrix (PA6) and fiber reinforcement (carbon fiber) were adjusted for the new process parameters. The selection of the fiber matrix combination was conducted using the interfacial tension calculations at room temperature. The polar and dispersive surface energy of two different carbon fibers as well as the wetting of PA6 polymer melts on carbon fibers and on aluminum carriers were investigated. The calculation of composite properties using material data of the matrix and fiber was used to determine the process windows for specific parameters such as layer height, layer width and nozzle size. Furthermore, the mechanical properties and the cost of the composite can be determined in relationship with the materials used and the fiber volume content. The composition of the fiber sizing and the influence of high processing temperatures was characterized using TGA, FTIR spectroscopy and XPS

analysis. The processing parameters and rheological behavior of PA6 thermoplastic resins and mixtures were investigated, and a mixture of 75 wt.% Ultramid B3k and wt.25% of Ultramid B50l from BASF was used for the composite fabrication by material extrusion. The optimization of the extrusion process enables the production of filaments with higher flowability (low zero viscosity), with the fiber infiltration improved by the adjusted rheological behavior. Samples for mechanical and optical analysis were fabricated using the self developed print head and three different types of carbon fibers. Three point bending properties were investigated as a function of layer height and printing temperature; tensile properties of single composite strands fabricated with different printing temperatures and multilayer composite were also characterized. The fiber volume content and the porosity were evaluated in crosssectional analyses. The investigated material combinations, optimization of process parameters and the fiber roving infiltration effect in the print head leads to higher mechanical properties and lower porosity in the composite.